

**ARIZONA GAME AND FISH DEPARTMENT  
HABITAT PARTNERSHIP COMMITTEE  
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number:

Possible Funding Partners:

**PROJECT INFORMATION**

**Project Title:** Grassland Conservation on the Williams Ranger District of the Kaibab National Forest (Ida and Irishman Dam Grassland Maintenance and Restoration)

**Region and Game Management Unit:** Region II, Units 7W and 8

**Local Habitat Partnership Committee (LHPC):**

- Flagstaff/Williams HPC

**Was the project presented to the LHPC?**

YES[X] NO[]

**Has this project been submitted in previous years?** YES[X] NO[] **HCP Project #:** 09-203 (Ida  
If Yes, was it funded? YES[X] NO[] → Grassland Maintenance)

**Project Type:** Mechanical thinning

**Brief Project Summary:**

- Thin junipers, pines, and other invading conifers to restore or maintain approximately 6,500 acres of grasslands on the Williams Ranger District over a two-year period. This would improve habitat for pronghorn antelope, elk, mule deer, and wild turkey. It would also benefit many non-game grassland species of conservation concern (e.g., golden eagles, Gunnison's prairie dogs, and various songbirds and small mammals).
  - Complete thinning efforts on the 12,600-acre Ida Grassland, where fire would be used as the primary tool for future maintenance. The Williams Ranger District has restored or maintained over 10,000 acres across this landscape since 2006, largely through funding from the HPC program.
  - Reinitiate conservation efforts in an important pronghorn wintering area, fawning area, and movement corridor on the Irishman Dam Grassland. This area is part of a greater landscape identified for restoration under the South Kaibab Grassland Conservation Plan.

**Big Game Wildlife Species to Benefit:** Pronghorn Antelope; Elk; Mule Deer

**Implementation Schedule (Month/Day/Year):**

Project Start Date: October, 2011

Project End Date: September, 2013

**Environmental Compliance:**

NEPA Completed: YES[X] No[] N/A[]

Projected Completion Date: \_\_\_\_\_

State Historic Preservation Office - Archaeological Clearance:

YES[X] No[] N/A[]

Projected Completion Date: \_\_\_\_\_

Arizona Game and Fish Department EA Checklist: N/A[X]

To be Completed by: \_\_\_\_\_

Projected Completion Date: \_\_\_\_\_

Approved

Forest Supervisor

Date

8/30/11

## PROJECT FUNDING

**Special Big Game License Tag Funds Requested:**

\$ 100,000 (\$50,000/year over two years, strictly for on-the-ground implementation; \$31/acre, including crushing of tree carcasses; 2,000 acres worth of treatment)

**Cost Share or Matching Funds:**

\$ 155,000 (\$100,000 to be matched for on-the-ground implementation; \$55,000 already expended on NEPA and archeological survey and clearance; does not include costs of project administration).

**Total Project Costs:**

**\$ 255,000**

## PARTICIPANT INFORMATION

**Applicant** (please print):

John DeLuca  
Wildlife Biologist  
Williams and Tusayan Districts  
Kaibab National Forest

**Address:**

Williams Ranger District  
742 S. Clover Rd.  
Williams, AZ 86046

**E-mail:**

johndeluca@fs.fed.us

**Telephone:** (928) 635-5627

**Date:** 07/18/2011

**AGFD Contact and Phone No.** (If applicant is not AGFD personnel):

Mike Rice (928) 606-2290  
Micah White (928) 606-3093

**Project has been coordinated with:**

This proposal has been sent for review by the following organizations and groups: Arizona Antelope Foundation; Arizona Deer Association; Arizona Elk Society; Arizona Game and Fish Department; Arizona Wildlife Federation; Mule Deer Foundation; National Audubon Society (Northern Arizona Chapter); National Wild Turkey Federation; Rocky Mountain Elk Foundation; Quail Unlimited; US Fish and Wildlife Service. All suggested editions were incorporated.

The ranchers that graze allotments within the project area fully support this effort. You may contact Earle and John Nagiller (928-635-9359) and John Cauthen (928-890-6943) to speak with ranchers about this project.

### NEED STATEMENT – PROBLEM ANALYSIS:

Historic overgrazing and fire exclusion have allowed junipers and pines to encroach upon hundreds of thousands of acres of historically open lands on the Kaibab National Forest. The Ida and Irishman Dam Grasslands serve as essential habitat for elk, mule deer, wild turkey – and most notably – pronghorn antelope. Golden eagles, burrowing owls, ferruginous hawks, Gunnison's prairie dogs, and other grassland wildlife of conservation concern use these areas. However, these grasslands are being invaded by junipers and pinyon pines, to the point where mechanical treatment is necessary before fire can be effectively used for their maintenance.

The grassland thinning staff of the Williams Ranger District is largely funded by HPC funds. The Forest Service anticipates a 5-10% decline in its total budget in 2012, with additional cuts in 2013. With the current outlook for the agency's budget, collaborative funding will become increasingly

important to conserve grasslands on the Williams Ranger District. *Please keep in mind that this project is scalable; grassland conservation costs approximately \$31/acre on the Williams Ranger District. Another note of importance: One of our two agra-axe operators is a seasonal employee whose length of term is directly related to the amount of external funding that the Kaibab receives through grants; the more funding received, the more acres accomplished.*

#### **PROJECT OBJECTIVES:**

To restore or maintain 6,500 acres of grassland habitat used by pronghorn antelope, elk, mule deer, wild turkey, and many non-game species of conservation concern.

#### **PROJECT DESCRIPTION AND STRATEGIES:**

The Williams Ranger District would use agra-axe machines to thin junipers and pines that are encroaching upon important grasslands. Grassland receiving treatment would have 100-300 trees/acre of encroachment. Agra-axe operators would crush cut trees to improve visibility for pronghorn. Pre-settlement trees would be retained. After mechanical treatment, prescribed fire and some wildfire would be used to maintain these grasslands. However, this grant would not fund wildland fire management. Fuelwood collectors would be allowed to collect down trees within the project area.

Since 2006, the Williams Ranger District of the Kaibab National Forest has restored or maintained over 10,000 acres of grassland habitat through the use of agra-axe machines. In this proposal, we seek funding to continue grassland conservation to benefit wildlife, hunters, and the public at large. With this funding, we would treat an additional 6,500 acres between October, 2011 and September, 2013. This would complete mechanical thinning of the 12,600-acre Ida Grassland, which serves as key habitat for a herd of approximately 300 pronghorn antelope. It would reinitiate treatments in and around Irishman Dam, an important wintering area, fawning area, and movement corridor for a separate herd of approximately 250 pronghorn antelope.

#### **PROJECT LOCATION:**

See Maps 1-3 for locations. Written descriptions follow.

Ida Grassland: Approximately 13 miles southeast of Valle. Directly south of the east-west portion of Hwy. 180 and approximately ten miles east of Hwy. 64. T. 24 N. and T. 25 N., R. 3 E. and R. 4 E.

Irishman Dam Grassland: Approximately two miles south of I-40 and directly east of Hwy. 89. T. 19 N., R. 3 W.

**LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):** All public land (Williams Ranger District, Kaibab National Forest).

**HABITAT DESCRIPTION:** Grasslands invaded by junipers, pinyon pines, and other woody species.

## **ITEMIZED USE OF FUNDS:**

### Special Big Game License Tag Funds

All tag funds (\$100,000 requested) would go toward on-the-ground implementation. A daily cost break-down follows.

<b>Item</b>	<b>Daily Cost (\$)</b>
2 Agra-Axe Operators' Wages	500
2 Bobcats	400
1 Truck	20
Diesel for Bobcats	240
Gasoline for Truck	230
Bobcat Maintenance	6
<b>Total</b>	<b>1396</b>
<b>Average Cost Per Acre (45 acres/day treated on average)</b>	<b>31</b>

### Cost Share or Matching Funds

\$100,000 would go toward on-the-ground implementation (see table above). \$55,000 have already been spent on planning, NEPA, and archaeological clearance. In addition, the Forest Service and AZGFD have collectively funded thousands of acres of grassland conservation since the late 1990s.

## **LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

This proposal has been sent for review by the following organizations and groups: Arizona Antelope Foundation; Arizona Deer Association; Arizona Elk Society; Arizona Game and Fish Department; Arizona Wildlife Federation; Mule Deer Foundation; National Audubon Society (Northern Arizona Chapter); National Wild Turkey Federation; Rocky Mountain Elk Foundation; Quail Unlimited; US Fish and Wildlife Service. Ranchers with livestock on allotments within the project area fully support this project.

## **PROJECT MONITORING PLAN:**

On-the-ground monitoring and inspection will be conducted regularly by the South Zone Wildlife Biologist of the Kaibab National Forest. Vegetation plots would be used to measure increase in forage. Monitoring by AZGFD Wildlife Managers would also be done.

## **PROJECT MAINTENANCE:**

After mechanical thinning with agra-axe, prescribed fire (and when the opportunity arises, wildfire) will be used to maintain grasslands on a 7-12 year fire return interval.

## **PROJECT COMPLETION REPORT TO BE FILED BY:**

South Zone Wildlife Biologist, Kaibab National Forest (John DeLuca).

## **TREE SHEARING (AGRA-AXE, PUSH) PROJECTS** *(see attached worksheet):*

## ARIZONA GAME AND FISH DEPARTMENT TREE SHEARING WORKSHEET

PROJECT TITLE: Grassland Conservation on the Williams Ranger District of the Kaibab National Forest (Ida and Irishman Dam Grassland Maintenance and Restoration)

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**1) What is the estimated acreage of the project?**

6,500 acres from October, 2011 to September, 2013. The total acreage treated through collaborative funding between Forest Service funded and HPC funds would exceed 14,000 acres upon project completion, including the entire Ida Grassland.

**2) How are the trees going to be cleared? (agra axe, chain saw, push):**

Agra-axe.

**3) What is the estimated number of trees per acre?**

100-300 trees/acre throughout most areas proposed for treatment.

**4) Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):**

One-seed juniper (*Juniperus monosperma*; multi-stem), Utah juniper (*Juniperus osteosperma*; single-stem), pinyon pine (*Pinus edulis*). All post-settlement trees will be cleared. All pre-settlement trees will be retained. This would generally involve cutting trees up to 12" diameter-at-breast-height.

**5) Describe terrain (slope, soil type, rocks)**

Relatively even terrain. Mostly grassland mollisoils. Rocky areas occur sporadically throughout the project area, but do not predominate. Pre-settlement trees will be retained.

**6) Please list any special land management status for the project site (e.g. Wilderness, National Park, National Monument). If private land, list landowner.**

N/A.

**7) Please provide the following information about access to the proposed site:**

Type of access (mark one): ☒ 2x4 vehicles ☐ 4x4 only ☐ Foot only\*\*

\*\*If foot access only: Distance in miles:    Approx. hiking time:

Does access to this site require crossing private or tribal lands? YES ☐ NO ☒

Is the site relatively accessible for tree shearing equipment? YES ☒ NO ☐

Please describe any restrictions to public access: None.



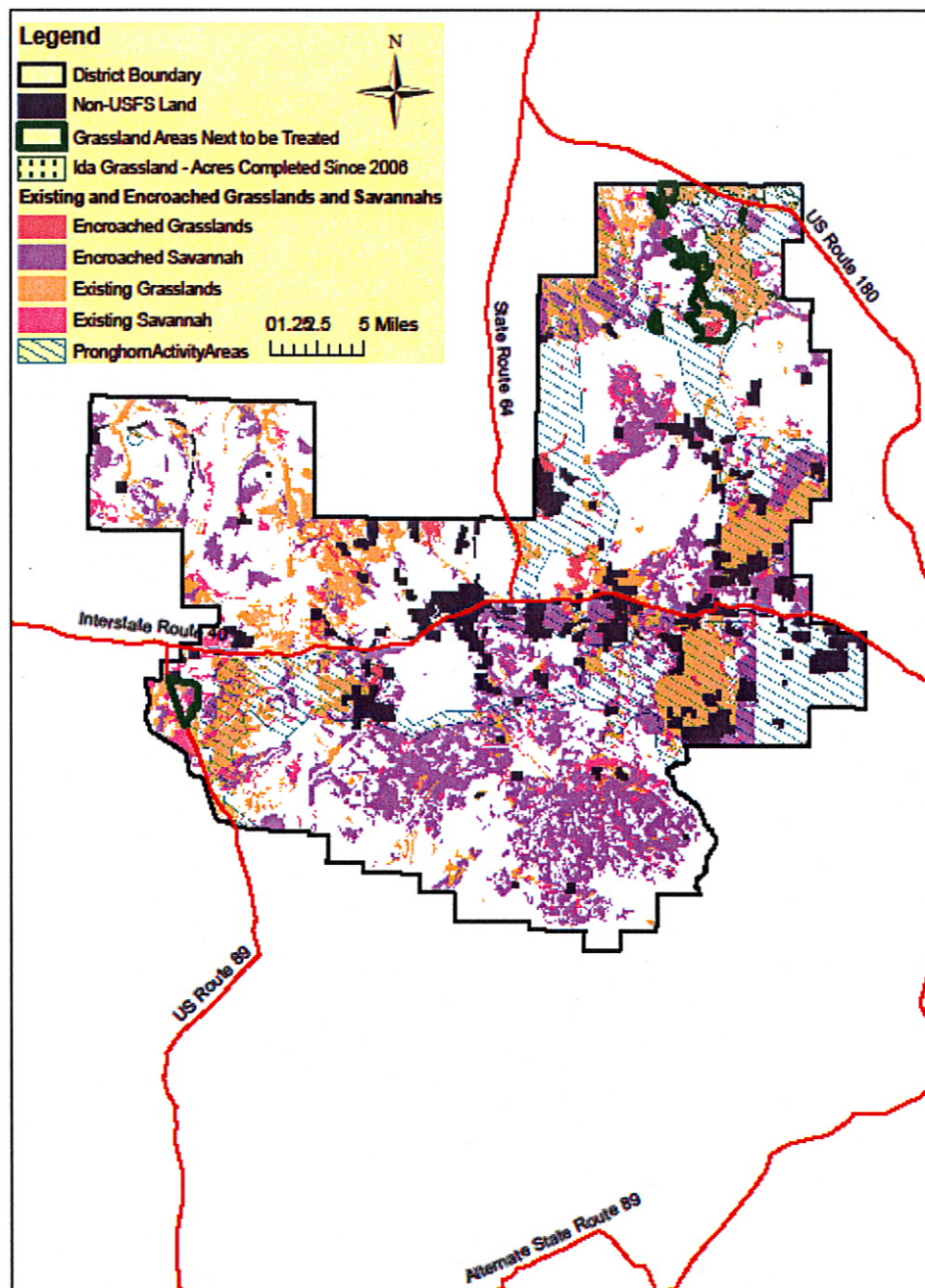
Example of grassland prior to agra-axe treatment.



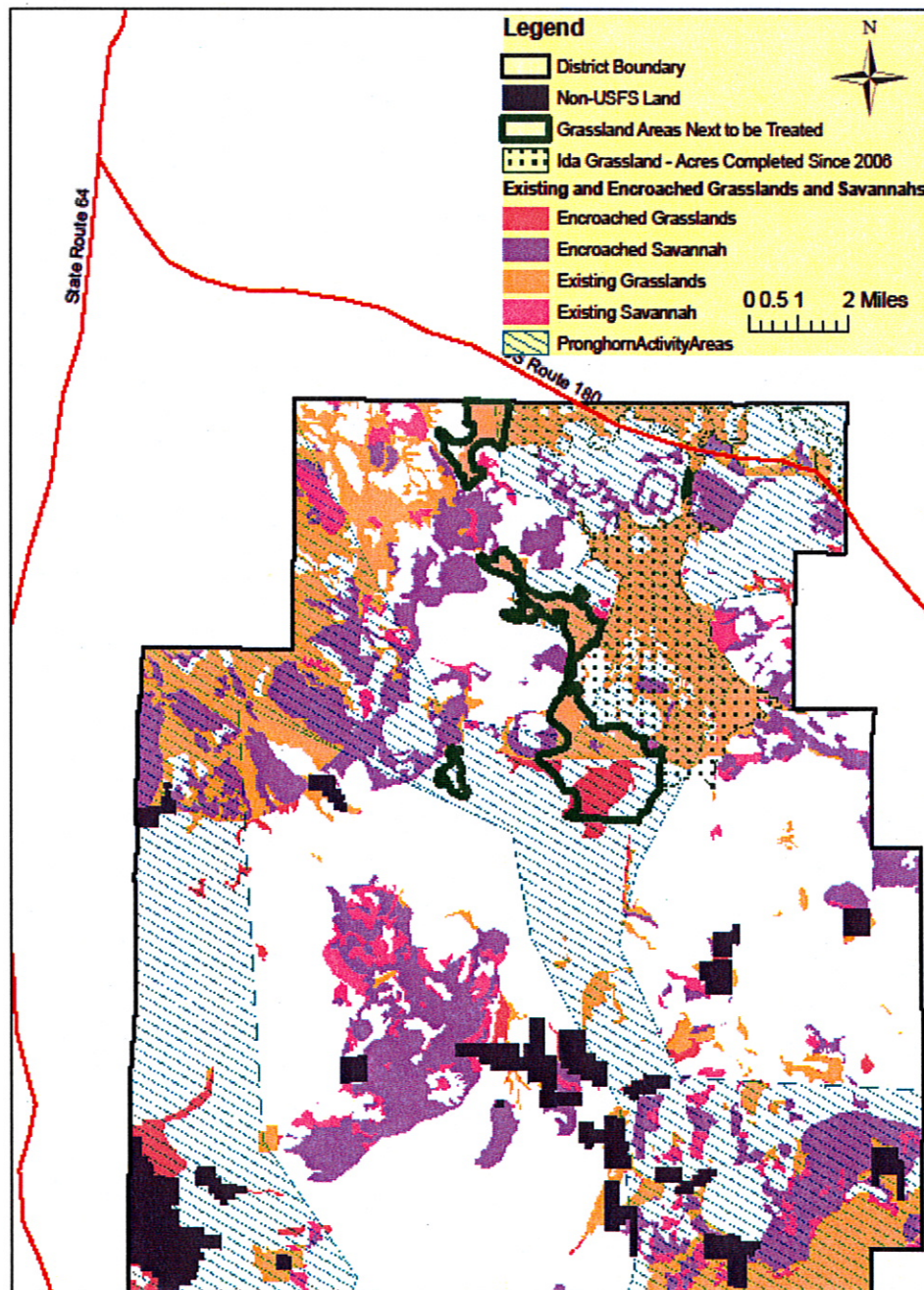
Example of grassland after agra-axe treatment.



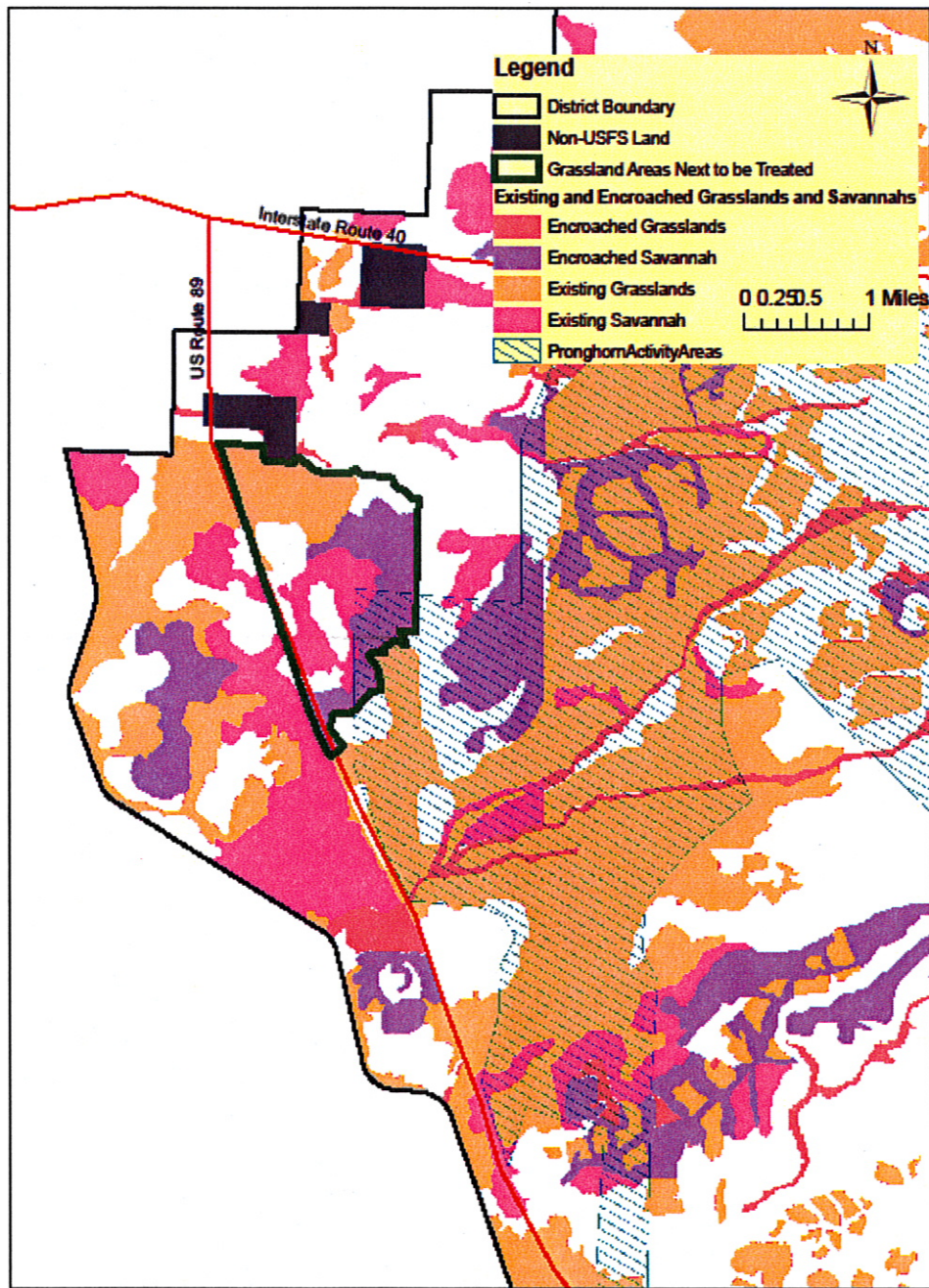
Example of lush, diverse grasses and forbs that grow underneath cut trees.



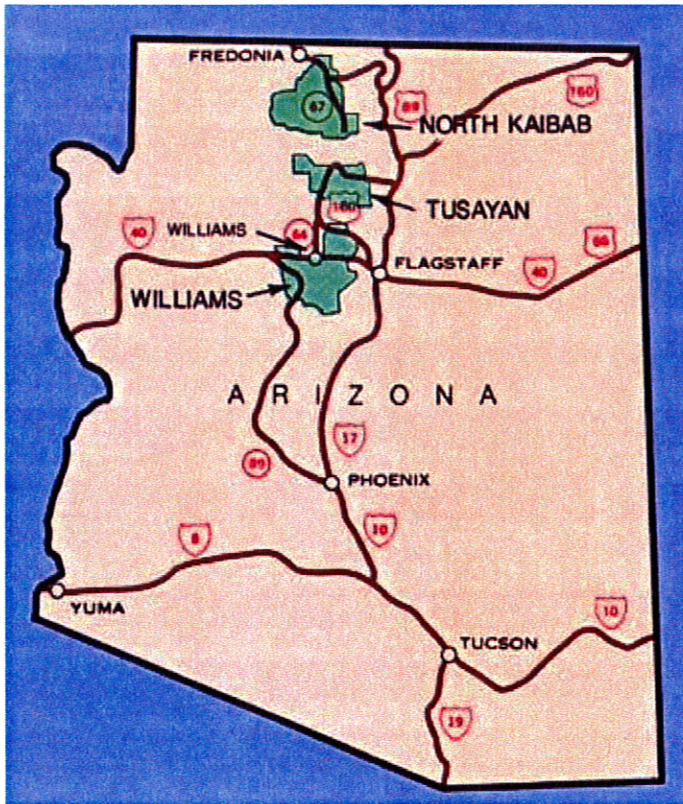
Map 1. Location of areas to be thinned with agra-axe machines. The Ida Grassland occurs in the northeastern portion of the District. The Irishman Dam Grassland occurs in the southwestern portion of the District. Pronghorn activity areas are based off of AZGFD telemetry data.



Map 2. Close-up of Ida Grassland. Pronghorn activity areas are based off of AZGFD telemetry data.



Map 3. Close-up of Irishman Dam Grassland. Pronghorn activity areas are based off of AZGFD telemetry data.



Map 4. Location of Williams Ranger District and greater Kaibab National Forest in relation to prominent landmarks of Arizona.